

Technical Guide SE2.2

CONVERTER MC406

Electromagnetic flowmeter



EUROMAG
INTERNATIONAL
Measure > Sense > Innovate



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The battery powered electronic converter



DS400-5-ENG



Converter MC406

The MC406 is the new high -efficiency, technologically advanced battery powered electronic converter from Euromag, combining high performances and dedicated applications solutions to a low cost of ownership.

Up to 10 years of battery life allows maintenance free of operation. Battery pack is then easily replaceable, all data are automatically stored in the internal EEPROM memory and no data will be lost.

Applications

- Abstraction and distribution
- Revenue and bulk metering
- Irrigation
- Waste water and treatment
- Leak detection systems
- Any remote application with no access to mains power

Installation

Compact: horizontal or vertical (typically pit installations).

Separate (Remote): up to 30 meters of cable are supplied from factory.

Case

Reliable and robust, Technopolymer case with 4 PG9 glands and aluminum bottom on compact vertical configuration.

Data security

Excellent data security given by the internal EEPROM memory. Enhanced security in data and parameter storage; built-in datalogger with over 100.000 data lines capacity (more than 3 years of data under factory settings). Cycle memory, old data will be overwritten by new ones when full capacity is reached. A software is supplied with the unit to allow users to communicate with the 406 via Ircm port to any pc, lap top or windows tablet. Easy data download and management, easy programming.

Advanced self-diagnostic performs a wide range of essential checks automatically.

Low flow detection

Combined to the Euromag MUT2300 sensor series, the MC406 is capable to read flow velocities of 0.015 m/s (MID-OIML R49 certified).

MC406 is compatible with the complete line of sensors from Euromag.

Full bore units up to DN 600, and with any insertion sensors.

Remote data reading

With advanced display information, on-site data collection and remote monitoring via GSM/GPRS network, the MC406 allows any customer to access all the information, easily and at no cost.

Add on communication module automatically sends the information via SMS, e-mail (with or without attachment) and to www.euromagdata.com free access using any browser and with personal ID and password, also on smart phones and tablets.

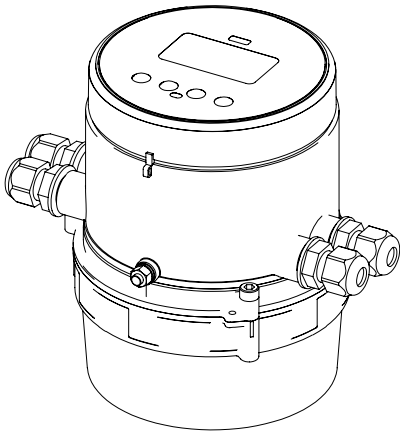
Add on modules of temperature and pressure readying, make the MC406 one of the most complete electronic converter for electromagnetic flowmeters available, giving to the end user a full control over all the main parameters of its network, reducing cost of programming, installation and maintenance.

One unit supplying flow - pressure - temperature, all at the same time.

Always verified

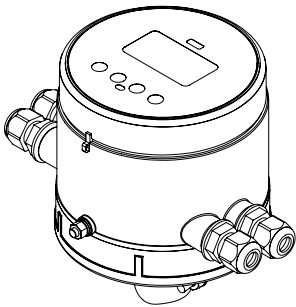
On-site verification available with the Euromag FIELD VERIFICATOR.

MC406 GSM



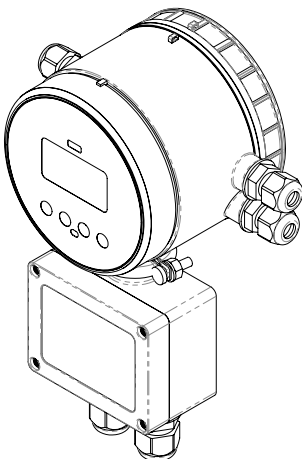
Weight 900 gr

MC406 VERTICAL



Weight 480 gr

MC406 SEPARATE



Weight 600 gr



MUT1222 - MC406



MC406

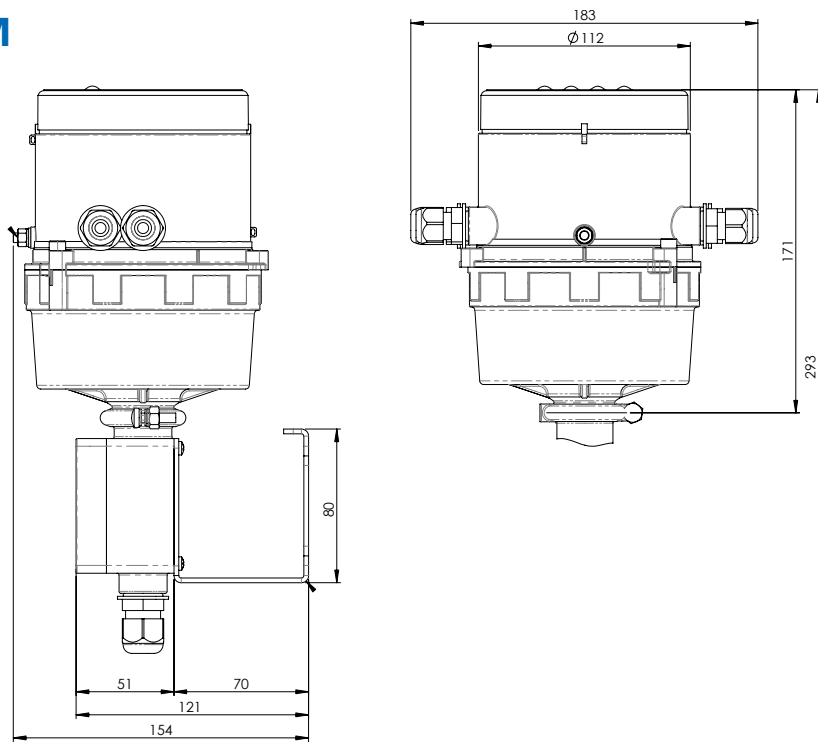


MUT2300 - MC406 VERTICAL

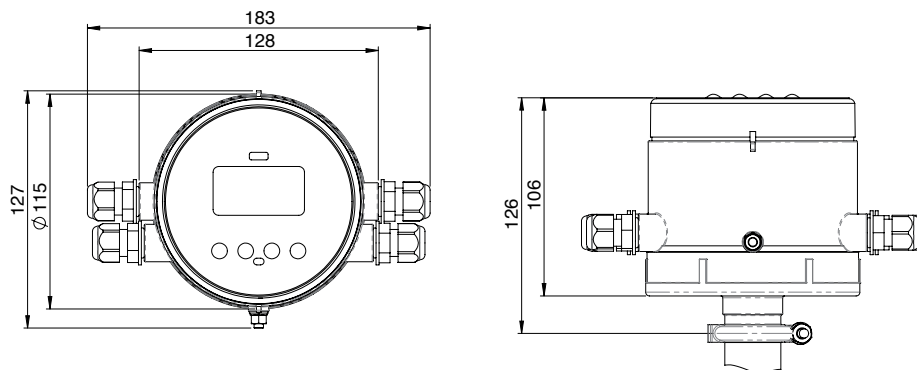


MC406

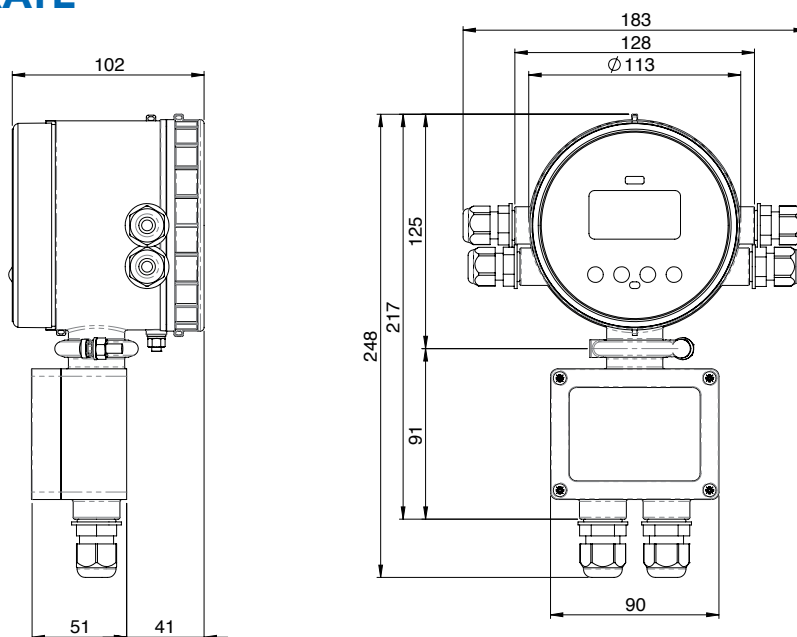
MC406 GSM



MC406 VERTICAL



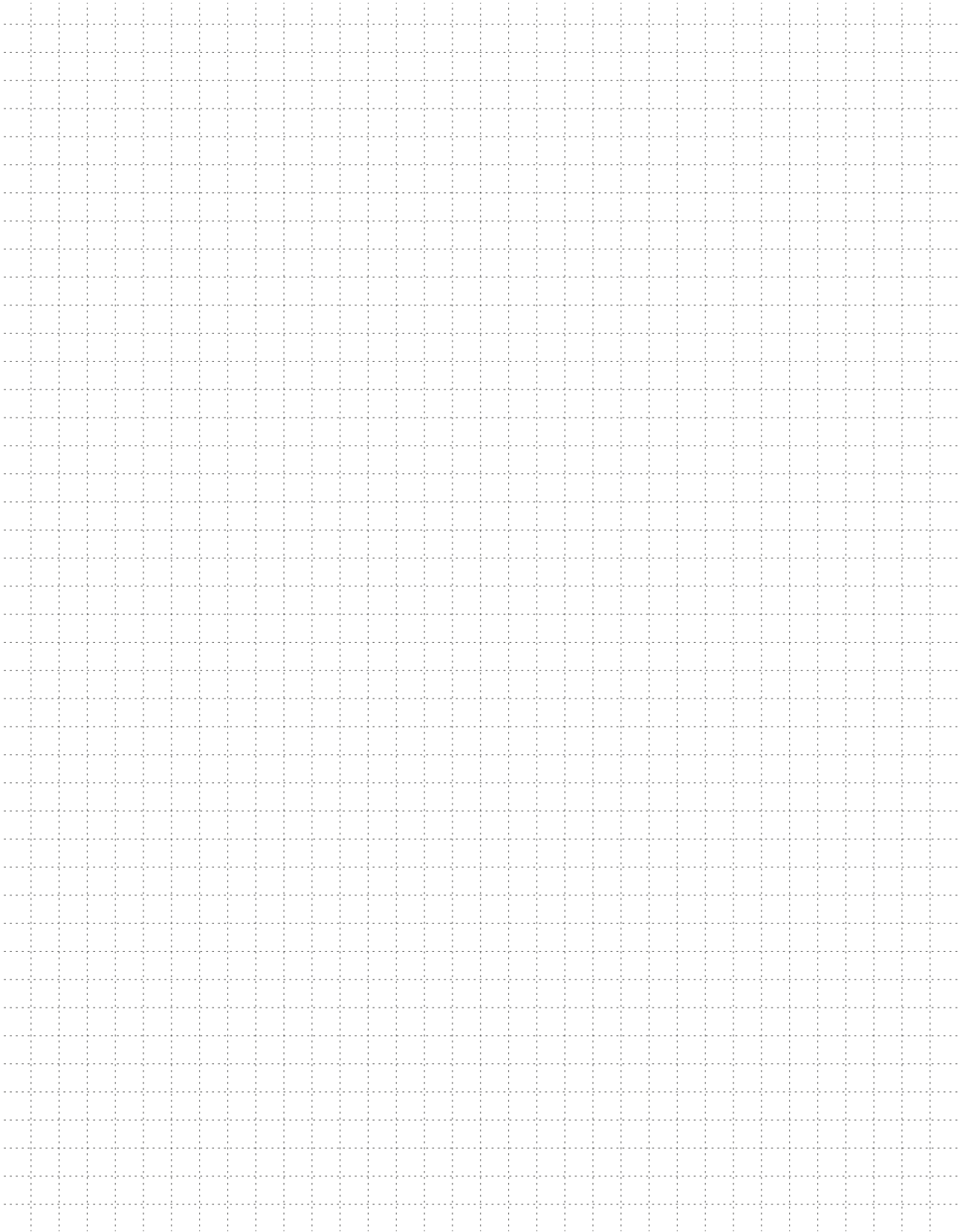
MC406 SEPARATE

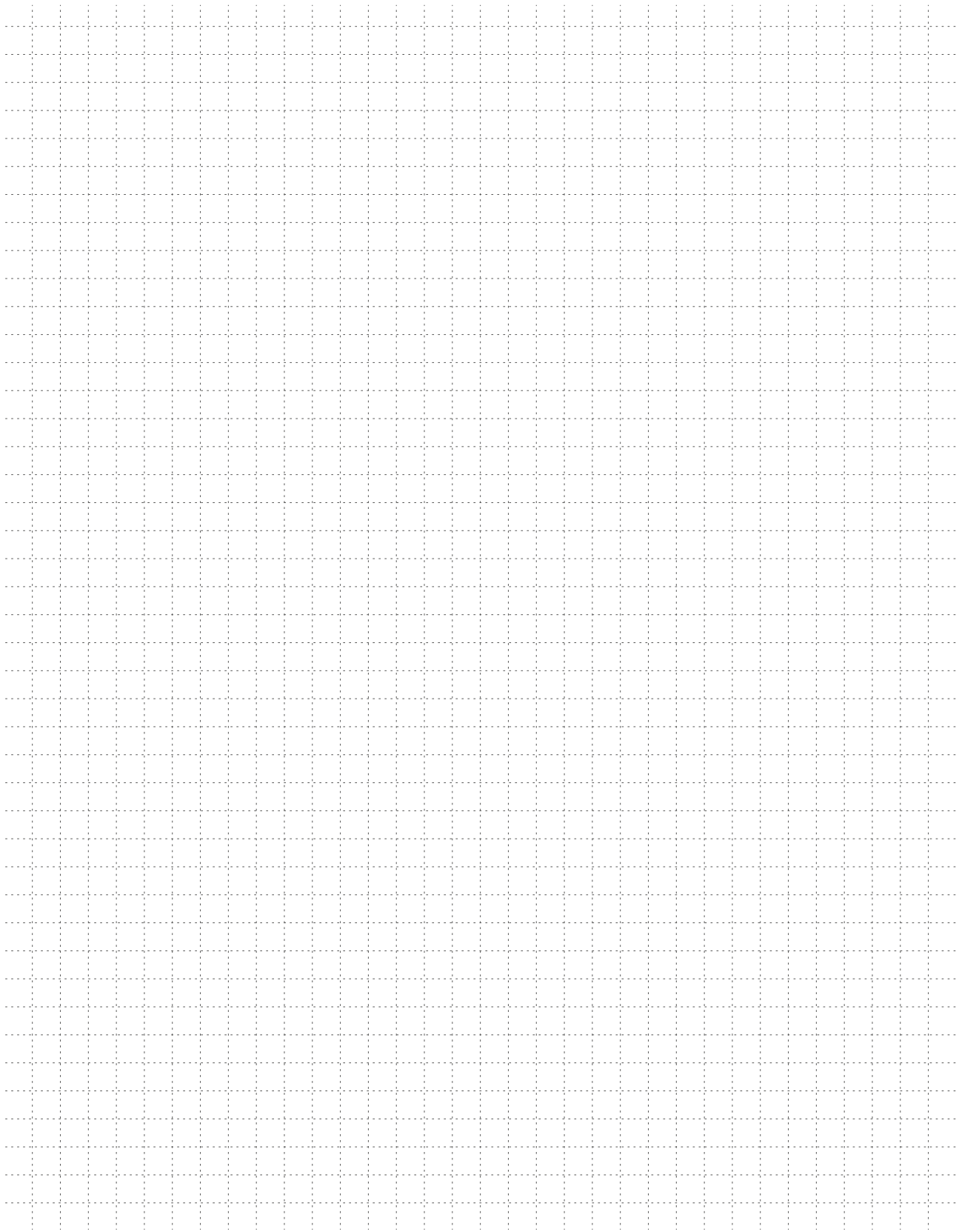


Transmitter type	Battery powered - 2 x D Cell 3,6 V * - 12/24Vdc optional
Battery life	Lithium battery pack up to 10 years / GSM battery life up to 10 years
Accuracy	0,2 % +/- 2 mm/s - insertion sensors 2% of rate +/- 2mm/s
Temperature	Ambient: -20 ... +60 C° (-4 ... +140 F) Media -25 ... 80 C° (-13 ... +176 F) Storage -40 ... +70 C° (-22 ... +158 F)
Enclosure	Technopolymer case with aluminum bottom on compact vertical version. IP 68. Remote wall mount bracket in carbon steel zinc plated
Cable entries	4X PG9 Glands I/O - 2X M20 x 1.5. Glands junction box in remote version
Custody transfer	Type approved OIML R49-1 2013 / EN 14154 MID EN-ISO 4064 - Certificate n. T10713 - Class 2 and Class 1
Conformity	EMC: EN 61010 - LVD: EN 61326 ; EN/IEC 60529 IP68
Sensor type	Full bore up to DN 600 - Insertion meters
Flow velocity range	0,015 m/s up to 10 m/s
Sampling rate	Standard mode 1 / 5 Hz up to 1 / 60 Hz (default 1 / 15 Hz) max 3,125 Hz
Installation	Integral (compact) or remote with factory mounted sensor cable in 5 m (16,4 ft) up to 30 m (98,4 ft)
Digital filters	Damping - cut-off (0,05 m/s default) - bypass - peak cut
Display and keys	LCD display - Index, menu, and symbols icons for dedicated information 4 Push buttons to access all functions Totalizer informations can be displayed with 5 decimal digits
Displayed informations	Live flowrate Total positive totalizer (T+) Total negative totalizer (T-) Partial positive totalizer (P+) Partial negative totalizer (P-) Net totalizer (NET) Time & date Converter temperature Process pressure and temperature (if available) Parameters corresponding code and value
Flow Units	m, m ³ , l, ML, ft ³ , GAL
Outputs	2 pulses passive outputs (1 programmable as alarm), individual galvanically isolated - clean contact Maximum load +/- 35V DC, 100 mA short circuit protected. 4...20mA loop powered optional. RS485 Modbus output optional.
Communication	Integrated Euromag IrComm interface. Bluetooth module optional.
Datalogging	100,000 lines of data with a frequency of log between 1 minute and 120 minutes (default 15 minutes)
Add on modules	GSM/GPRS Euromag Module Pressure (1) and temperature (2) Energy metering ready
Totalizers	5 (2 positive, 2 negative and 1 net)
Date and time	Yes
Data protection	Password available, automatic firmware check and recover during the update
Alarms and status	Status icon displayed and alarm logged in the datalogger
Self diagnostic	Alarms available: <ul style="list-style-type: none"> • excitation failure • empty pipe on the 4th electrode • empty pipe on the measuring electrodes • high temperature • high voltage supply • pulse overlapped • wet electronic board • low battery
External verification	Field vericator available for calibration verification and electronic status
Software for communication and programming	Commissioning (equal settings of meters) - Data print for documentation - Data export (CSV file) - Firmware update - Read instant flowrate - Read and write all non volatile parameters - Download internal datalogger - View instrument event logger

* Lithium batteries are subject to special transportation regulations according to United Nations "Regulation of Dangerous Good", UN 3090 and UN 3091. Special transport documentation is required to observe these regulations. This may influence both transport time and cost

Note







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Hynds Smarterwater
25 Arwen Place, East Tamaki, Auckland 2013
PO Box: 58142, Botany, Auckland 2163

smarterwater.co.nz
measure to manage, measure to act

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